Chapter - I

INTRODUCTION
1.1 Introduction

A wise English poet once said "you can please some of the people all of the time and all of the people some of the time, but you cannot please all of the people all of the time". As relevant today, as it was six hundred years ago, John Loydgate's observation described the predicament of twenty-first century school teachers. As student populations become increasingly diverse, teachers struggle to identify instructional models that will enable them to teach all of their students all of the time.

The latter half of the twentieth century saw major advances in educational sciences, offering teachers new perspectives into the invisible process of learning. Jean Piaget and Lev Vygotsky led the way of studying cognitive development and the construction of knowledge through qualitative observation and experimentation. In order for teachers to apply this wealth of insight to educational practice, they themselves have to be educated.

Invention and creativity are essential for the progress of society and making the life more meaningful. So there is a need to orient students in creative thinking. Young people face tremendous challenges for the future which include education of natural resources and enhancing problems to everyday life. So investigation on how effectively to stimulate students in development of creativity is important and a worthwhile research endeavour is needed for the society. Most of the research works on creativity was carried out in USA. Jaksen et.al. (1993) opined creativity is a multifaceted phenomenon that results in production of new and useful ideas.

Works on creativity especially on nurturing and promoting creative thinking in classroom setting is at recent stage in India. Therefore much remains to be explored and accomplished in this emerging field. There are a large number of methods for developing
creative thinking such as brainstorming, mind control, synectics, meditation, creative dreaming, socio drama, psycho drama, imaginary, analogy, gestalt therapy etc., some of these have been tried out by different researchers in the field of education.

1.2 Theoretical Framework of Creativity

1.2.1 Creativity

It is the creation of 'Abignyana Shakuntala', it is the words of Homer, it is the mystic by Da Vinci's finger..., it is the powerful feelings of Wordsworth, Law of Gravitation, Electricity..., are all the products of creativity.

Creativity is defined as the ability to bring something new into existence; it is distinguished by novelty, originality and universally inventive. Creativity was believed to be a heaven's gift, a rare quality of distinguished individuals with inborn talent. An individual who is flexible in thought and action, who can produce novel ideas, who expresses his ideas fluently along with certain personality traits is said to be creative.

Good education, proper care and provision of opportunities for creative expression and stimulation, sharpen the creative mind and it is in this sphere, those parents, teachers and the society should make a significant contribution. They are required to help the children in nourishing and utilizing their creative abilities to the most. The educational process, therefore should be aimed at developing creative abilities among children.

Creativity is not simply an art bestowed on certain individuals by God. It is rather an ability which all individuals possess to some extent. The theoretical as well as empirical discussions have brought out different types of creativity as distinguished by Mackinnon (1963). One form of poems, novels, dramas, composes etc., come under it. In this type of creativity the product is related to the creator, or his inner states. Another type of creativity is where the product is not related to the creator or his inner state. Rather he acts as a mediator between
extremely defined needs and goals. This type of creativity is expressed in the research work of scientists, engineers, chemists, biologists, etc. There can be many types of creativity expressed by individuals. Creativity may be represented in the works of sculptors, performers etc. In other words, finge of creativity can be observed in every activity of mankind.

Creativity has been discussed by Guilford (1956) as divergent thinking in his famous structure (S.I.) of model. According to him, creativity is, by no means, a unitary trait, but is rather a collection of different abilities and other traits. According to Passi, (1972) it is a multidimensional attribute differentially distributed among people and includes chiefly in factors of seeing problems, fluency, flexibility, originality, acquisitiveness and persistency.

Jackson and Mestick (1965) have drawn attention to comparison between intelligence and creativity. They suggested four major criteria to identify creativity, unusualness, appropriateness, transformation of material and ideas to overcome conventional constraints and condensation.

Barron (1969) "creativity may be defined quite simply as the ability to bring something new into existence. The human act of creation always involves a reshaping of given materials. The new form is something made by the re-constitution of an regeneration from something old".

Silbermann (1970) states that Education should prepare a man for works that does not get exist and whose nature cannot even be imagined. This can be done only by teaching children how to learn and by giving them the kind of intellectual discipline that will enable them to apply man's accumulated wisdom to new problems.

Freedom (1976) observed that creativity ability exists in several fields each of which has common elements with others and each has its specialized abilities as well as elements.

Hence creativity as a psychological construct is more or less present in each and every human being. This potent of the individual
needs to be unfolded and nourished through a well planned and purposive programme of education. The creative ability of human being is responsible for all sorts of changes and progress of the society since time immemorial.

1.2.2 The Importance of Creativity

Creative ability of the human being is both inherited as well as acquired. But as the human being can not have any control over heredity as a factor influencing creativity; at least the environment can be made conducive for enhancing the creative talents of the individual. The school environment is supposed to play a very determining role in unfolding the creative talents of the learners. School is a platform where ample opportunities are created for promoting creative thinking of the learners as well as their achievements in different fields of life. Presently, most of the schools intend to prepare their students in such a way that they would score high at the examination by getting the subject matter by heart and by means of cramming. They little bother whether the students have clear understanding of the learnt material or not. They provide very little scope to their students to think critically and divergently in the existing teaching learning process usually practiced in most of the schools. There is no scope for novelty, originality and innovation. At the outset, the school in the name of discipline and obedience, encourages convergent thinking only. Therefore in attempt for enhancing creativity of school children, due attention is given to appropriate methods of teaching through which they can be given opportunity to think critically and divergently so that their understanding as well as creative thinking ability can be developed. Hence the existing methods of teaching which put undue emphasis on convergent thinking ability are to be judiciously supplemented by appropriate methods meant for developing divergent thinking ability.

Synectics model of teaching is one such approach which seems to have the genuine potentiality for enhancing creativity of the
learners as it provides them the scope to participate in various metaphorical activities – the key to creative thinking ability through which they can be given opportunity to think critically and divergently. Hence the existing methods of teaching which put undue emphasis on convergent thinking ability are to be judiciously supplemented by appropriate methods meant for developing divergent thinking ability.

1.2.3 Language Creativity

Creativity shown in the language is called language creativity. It is a multi dimensional attribute that is differently distributed among the people and includes chiefly the factors of fluency, flexibility, originality and elaboration.

a) **Fluency:** It refers to a rapid flow of ideas and tendency to change directions and modify information. The greater the number of ideas a person generates on a particular topic or subject matter, the more creative he is considered on a specific task. In other words, it is quantitative representation of the ideas. The fluency may be counted in three ways.

1) **Ideational fluency:** It denotes skills in generating quantity of ideas in a language context. It concerns only with the number of relevant ideas not with the quality. The free expression of ideas encouraged and quality is not the main concern.

2) **Associational fluency:** It is the ability to produce many relationships or meaningful associations with a given idea or word. It is evident by the quantity of synonyms a person can attack to any familiar word that has many meanings. It indicates the production of ideas or words from restricted areas.

3) **Word fluency:** It is linked with only word. It is the generation of words of specifically required epithets.
b) **Flexibility:** The skill of being able to discontinue on existing pattern of thoughts and shifts to new pattern is called flexibility. In flexibility, ideas flash in new direction and a person writes as many points as his imagination can project. It refers to the number of different kinds of ideas a person thinks when faced with a problem. It indicates the number of distinct ways an individual can respond to a stimulus. Thus it is also the quantitative representation of the ideas.

c) **Originality:** It means the 'uncommon or rare'. It indicates uncommonness or newness in the ideas. The more the uncommon, original and infrequent ideas are, the more likely these are to be judged as creative. In language creativity, this factor counts the number of responses judged to be clever, witty and crisp. In other words, it represents the ideas both qualitatively and quantitatively.

d) **Elaboration:** This means 'building upon given information' to round out a structure, to make it more detailed or to explore new directions. In language, creativity ability to elaborate is indispensable in putting creative ideas. It is an ability to elaborate on a theme or creative insight. It refers to expanding and combining activities with higher thoughts. It shows production of detailed steps, variety of implications and consequences that can be quantitatively and qualitatively measured.

Language creativity is of a nature that permits freedom of responses both qualitatively and quantitatively for measuring different dimensions of divergent thinking.

### 1.2.4 Measurement of Language Creativity

There are five subsets in language creativity to assess the aforementioned factors. These are (a) Plot Building, (b) Dialogue Writing, (c) Poetic Diction, (d) Descriptive Style, and (e) Vocabulary Test.
a) **Plot Building:** This subset is based on Guilford's (1952) 'Multiple Story Plots'. In plot building, free play of imagination is encouraged. In order to provide with this opportunity and to exercise the imaginative ability, the students are asked to write or complete the story according to the given situation, title or theme, by projecting new ideas. For this purpose, different types or hypothetical situations can be provided to the students. These are: (i) story construction on a given popular proverb (ii) story construction on a given situation (iii) story construction on a given title (iv) story with two endings i.e., comedy and tragedy both (v) story on a given situation based on imagination (vi) story construction on modernizing the classical theme in the context of present social system and (vii) suggesting title for a given story or a short story plot.

b) **Dialogue Writing:** This is based on Guilford's (1952) 'Multiple Emotional Expression' and 'Multiple Social Problems'. The subset is concerned with writing witty and crisp dialogues between two persons. Expression of feelings, thoughts, attitude and emotions are made through conversation between hypothetical roles. The process of dialogue is initiated by asking the individuals to think on a particular environment and write dialogues representing that situation. The process helps in writing plays.

c) **Poetic Diction:** The pattern of this subset is based on Guilford's (1952) 'Expressional Fluency' and 'Word Pair Revision'. It is concerned with composing a poem. The individual composes a poem in any form and size he likes. The poem carries new ideas projecting the elements of humour. The individual can think of different situations in order to exercise the imaginative ability. The constituents of this ability are (i) poem construction on a given topic (ii) writing parody on given two lines of a particular poem and (iii) poem construction from a given rhyming words.
d) **Descriptive Style:** This subset is based on Guilford's (1952) controlled association. The individual describes the given topic based on imagination, observations, emotional experiences and comparison. Sometimes the situation is also described with respect to situation analogous.

e) **Vocabulary Test:** The subset is based on Guilford's (1952) 'Expressional Fluency', 'Controlled Fluency', 'Multiple Grouping', 'Word Pair Revision' and 'Word Fluency Test'. It is concerned with vocabulary of the individual. The individual may write meaningful words from a (i) given word and (ii) given numerical number. Besides this, the individual can write prefix and suffix letters and match attributes or qualities of two objects. The stimulus for this purpose may be attained from incomplete sentence or a word to give secondary meaning.

Language creativity is not much different from general creativity except for the aspect of elaboration which is specifically related to it. Another important feature of language creativity is that it can be objectively measured on the basis of different subsets impregnated in it. Because of these two features, a hunch is made that it can be attained by individual at different levels, if proper environment is created, as is claimed in case of general creativity. There is a need to test this hunch empirically. The attainment of language creativity can be got if its process or functioning is known. Various researchers and psychologists have given thought to the process of creativity.

1.2.5 **Importance of English Language:**

English is the only language understood by educated people all over the country. English is the store house of knowledge in our country, having recognized as an international language. It becomes the language of comprehension as well as the need of the students of all standards and of various socio-economic status.

English language as we know has carved out a prominent niche for itself in the language scene of the country. It has come to stay in
India and its importance is likely to increase in the foreseeable future. It is the mother tongue of the 350 millions in the whole World. UK, USA, Australia and Canada are some of the other countries where English is spoken as the first language or the mother tongue. Some other hundred millions of people of the World use English as the second language. English has been described 'A window for rapid progress' for everything that has taken place in the World. To quote F.G. Freach 'Anyone who has read English can keep himself in touch with the whole world without leaving his home'.

It is unrealistic to think that exposure to English language and literature alone will enable students to join the elite group in the country. A fair degree of proficiency in the use of present day English, both spoken as well as written, is what is required for the modern India.

Teaching of English in India, which said to be The World's largest democratic enterprise of its kind (N. Krishnaswamy and T. Shriraman, 1994) and among other challenges the learners pose the greatest challenge with a wide spectrum of varying kinds and degrees of competence in English as they are drawn from varied socio-economic, linguistic and cultural backgrounds.

S.K. Varma (1995) has shown another dimension to the teaching and learning of English in India. He has stressed the need to orient the English teaching programmes 'To develop human resources'. He holds the view that the English curriculum should not merely focus on job centred activities, but on the general ability, general competence, linguistic competence, pragmatic competence and managerial competence, which can enable the learners to handle not just one job, but variety of jobs in a variety of situation.

A retrospective view of the position and role of English would certainly be apt at this juncture. In fact, the role of English in India, has been a vital one. English has been with us and our society has grown and prospered with it. Over the years, a sense of ownership has developed as more and more Indians use it to perform various
functions in the socio-cultural context. It is estimated that English literacy rate is about 6.5 percent (25-30 million) in the country. S.K. Varma (1997) has identified the following domains where English is found very useful in the contemporary Indian society.

1. At the National and International levels, English continues to serve as our ‘window on the world’ and our link with the outside world. It is the main language of International communication.

2. It is an important promoter of social mobility for ordinary people. It has been playing an important role in bringing about national unity and integration.

3. Where the medium of instruction is some other language other than English, our students and researchers find English useful as ‘library language’ and ‘a language of wider communication’.

4. At the individual level English continuous to be ‘a language of opportunity’, ‘the language of development’ and ‘the language of upward socio-economic mobility’. Any individual seeking socio-economic advancement at the national level will find ability in English as an asset. Jobs that require interstate movement demand a fairly high level of competence in general and technical English.

N. Krishnaswamy and T. Shriraman have condensed all the above mentioned functions into three and speak of them as ‘three goals of teaching English in contemporary India’. They are

1) Mobility i.e. the utilitarian function of English as the language of opportunity.

2) Modernization i.e. interactional function of English as the window on the world and as the instrument of change.

3) The projection principle i.e. the interactive function of English as the international language to project our identity and values to promote better human understanding.

In order to realize these long range goals, a sincere attempts have to be made to give the learners an effective mastery of the language. This can be done very well by a non-conventional approach
which will look beyond the classroom, beyond text-books and beyond examinations based on prescribed books.

The discussion on the role of English and objectives of teaching English in a typical Indian multilingual setting leads to the following implications.

1. It is important that we should be able to identify English requirements of various groups of students precisely and provide for each group, the pattern of courses that will be relevant to the needs of the learners and help them reach different levels of skills in language performance otherwise the teaching of English ceases to have any special and economic relevance and will be reduced to a ritual. In the light of the new trend the ultimate objective of all the activities should be to help learners acquire not only context governed syllabus bound competence in handling English, but to attain that level of competencies which enable them to use it with confidence.

2. As the learners in the present setup are exposed to 'syllabus bound' and 'text bound English', they acquire ability to produce formal essays on literary topics but find themselves ill equipped for using English for day-to-day transactions.

3. English courses should aim at helping them to improve the creative language ability also. The English language teaching programmes should foster English language creativity among the students.

1.2.6 Future of English in India

For Indians, English has a special place. English is not a foreign language, it is a second language. Albert H. Marckwardt has made a distinction between 'English as a Foreign Language'. According to him, when English is 'taught as a school subject or on an adult level solely for the purpose of giving the student a foreign language competence which he may use in of the several ways" then it is taught as a foreign language.
The bright future of the English in India can be cited from the following points:

i. English has become the language of many Indians due to its very long association with Indian life.

ii. English provides us opportunities for the study of English literature which is so vast and so rich.

iii. It has helped to develop and refine many Indian languages.

iv. It serves as a common language of Indians.

v. It is a language of trade and industry in India.

vi. It is possible for us to translate English terms, in medical, scientific and technical knowledge into Hindi terms.

vii. Large number of our great leaders, scientists, philosophers, authors are the product of English education.

viii. English is the most developed language of the world.

ix. English is an international language.

1.2.7 Need of Creativity in English

The position of English has been very significant since the dawn of many centuries more so in the post independent era. The craze for English is mounting. The policies adopted by the state government and universities in Karnataka appear to be unfavourable for the study of English language both at the school and college level. A few instances can be stated to uphold the point. It is most shocking to note that a student undergoing the SSLC course need not necessarily pass in English if he/she can pass in the other counterpart language offered and thus can become eligible for the next course (circular of the Karnataka State Secondary Education Board, Bangalore, A-8, RFG. 14; 94-95-dated 17.2.1995).

Even in the midst of such discouraging policies, we cannot deny the importance of the study of English language for certain academic, social and commercial purposes. In the light of growing awareness, there is a growing trend of introducing proficiency and communication course in English substituting the conventional teaching of texts
containing literary pieces. Some universities in neighbouring states – Maharashtra and Andhra Pradesh have made a significant march in this direction, by introducing communicative course at the undergraduate level. Compulsory English course for degree students of Poona University and communicative skill in English, a course book is introduced for first year degree students of Osmania University are two examples. The universities in Karnataka are yet to make attempts in this direction.

The present study is expected to throw light on several issues connected with developing language creativity in English. Hence, as we discussed only the implementation of English as a school subject or college discipline is not sufficient. Since it is an alien and foreign language all feel and think in our mother tongue and then get the final product in a language called English. Therefore, there is no spontaneity, originality and novelty in the Indian English. So, creativity must be employed in the teaching of English. We must make the students to think, perceive, formulate, reason out and respond in English language only. When they apply unusual thinking, novelty, originality and uniqueness in English application, then we can consider it as creativity in English.

To foster creativity in English i.e. in a foreign language is not an easy task. Various studies and researches have been taken to develop creativity in English language but got lukewarm effect. Hence, newly emerged trends have been practicing in teacher educational institutions through the models of teaching, to enhance creativity in language teaching especially in English.

1.3 Theoretical Framework on Models of Teaching

1.3.1 Models of Teaching

Teacher education has undergone many welcome changes nowadays. Newly emerged trends are practiced in the teacher education system. Models of Teaching are one of them. Many psychologists described learning theories. It was Bruce Joyce and Marsha Weil who
had taken sincere efforts to create lot of creative work in the form of models of teaching which are based on learning theories. Models of teaching are alternative method of teaching. Using it in the classroom is nothing but implementation of researches which will lessen the wide gap between daily teaching and related researches.

A model of teaching consists of guidelines for designing educational activities and environment. They offer a diverse range of alternative patterns of instruction upon which the teachers may model their behaviour. Here the principles of teaching are not conceived as static tenets, but as dynamically interactive with social and cognitive procedure with available support technology and with the personal and intellectual characteristics of learning groups. These are the best methods of teaching, as teaching is analogy, activity design and performed for multiple objectives in terms of changes in pupil behaviour.

Based on their orientation and objectives, the models of teaching have been grouped in to the following four major families (Joyce and Weil, 1972).

a) **Information Processing Models:** These models aim towards the information processing capability to students and ways by which students can improve their ability to master information.

b) **Social Interaction Models:** These models emphasize the relationship of the individual to society by improving human relations in the classroom and helping students' clarity and their social values.

c) **Personal Model:** This group of models aims at the growth in self-awareness and development of selfhood. These emphasize the process by which individuals construct and organize their unique reality. Frequently, they focus on the emotional life of the individuals. It is expected that the focus on helping individuals to develop a productive relationship with the environment and to view themselves as capable persons will produce richer interpersonal relations. Synectics is one such
model where the objective is to develop creative potential in the learners. Out of all the models of this family, 'Synectics' is the model which has the objective to develop creative mind. This being one of the objectives, the study is to find out the effectiveness in developing creativity was selected for the present venture.

d) Behaviour Modification Model: The objective is to shape the behaviour of the students by means of seeing the learning tasks and manipulating the reinforcement.

The models are different from the methods of teaching in many respects. One most particular aspect is where the method is nearer to the style of teaching, the model got structured guidelines and is narrower in meaning. But all these models have one basic concern and that is to create environment for improving upon a particular ability. Joyce and Weil (1972) have put it under the heading 'Synectics Model' where the objective is to develop self awareness and selfhood among the students. However, detailed description of this model is given below.

1.3.2 Synectics Models of Teaching

Synectics is a creative problem solving process designed to increase the probability of successful solutions. The founding team originated in the Arthur D. Little Invention Design Unit in the 1950s, then set up Synectics Inc. (now Synecticsworld) in 1960 to further explore and develop the Synectics process. The Synectics process was developed by George M. Prince and William J.J. Gordon, and today is taught, certified and practiced widely in business, industry and education.

The Synectics process is designed to improve the probability of success in creative problem solving meetings by removing the negative elements of human group dynamics and replacing them with positive, collaborative tools to enable the team to focus their abilities on the challenges at hand. By employing positive group dynamics tools and
a rigorous problem solving infrastructure (guided by a facilitator), the team harnesses its multiplicative potential to problem solving.

The term Synectics is derived from the Greek "Syn" and "Ectos" means "the joining together of different and apparently irrelevant elements".

In order for teachers to apply this wealth of insight to educational practice, they themselves had to be educated. They needed training not just in the concepts, but also in effectiveness of integrating those concepts into their teaching. Educational researches and theories began formulating instructional models to assist teachers in utilizing scientific discoveries to enhance student learning. The most effective models capitalize on several philosophical, psychological and social perspectives.

Synectics is one such model all though originally designed to facilitate invention and problem solving with adults in industrial settings, its eclectic scientific basis has made it a natural class room tool. Although the model has been in practice in American schools since the early 60s, it remains relatively unknown and under used for the rest of the world.

1.3.3 History of Synectics

William J.J. Gordon began formulating the Synectics method in 1944 with a series of studies designed to discover the psychological mechanisms of creative thought. At that time, most psychologists considered creativity as mystical, subconscious process that science could not measure without disrupting the process itself. Gordon, however believed identifying the sub conscious processes and bringing them into conscious thought would not disrupt the creative process; in fact, he believed that doing so would enhance it.

Gordon's Synectics team examined creative individuals in the midst of their creative processes by encouraging them to think aloud as they solved complex problems. Comparing recordings of these sessions, the researchers discovered that their subjects entered into
certain psychological states en route to creative solutions, states that fostered divergent and metaphorical thinking include detachment, involvement, deferment and speculation.

Gordon and his team devised a procedure of mental exercises to guide everyday problem solvers into these psychological states. In subsequent tests, they confirmed that average thinkers could consciously achieve creative thought patterns by following a simple set of guidelines. Even naturally-creative thinkers benefited from conscious application of the Synectics mechanisms.

When the Synectics team expanded its study of individuals to include collaborative groups, they observed the same psychological states. In addition, they found that social interaction made the creative process more efficient. Because of these findings, the synectics has promoted its model as a group activity, and an equally operative for individual use.

1.3.4 Synectics Model of Teaching

In order to qualify as Synectics, the process must follow one of two multi-phase procedures. The procedure for “creating something new” is

Phase I: Description of the Present Condition
Phase II: Direct Analogy
Phase III: Personal Analogy
Phase IV: Compressed Conflict
Phase V: Direct Analogy (based on the compressed conflict from Phase IV)
Phase VI: Re-examination of the Original Task

It is important to note that students may not return to the original problem until the final phase.

• According to this model creativity is important in everyday activities. Gordon's model is designed to increase problem solving, creative expression, empathy and insight into social relations.
Second, the creative process is not at all mysterious. It can be described, and it is possible to train persons directly to increase their creativity. (Traditionally creativity is viewed as a mysterious, innate and personal capacity)

Third, creative invention is similar in all fields of the arts, sciences, engineering and is characterized by the same underlying intellectual processes.

Gordon's fourth assumption is that individual and group invention (creative thinking) are very similar. Individuals and groups generate ideas and products in much the same fashion.

In school systems the main technique used is analogy. The child is lead into an 'imaginary/illogical world' to see things never seen before to express himself in novel ways, to approach problems from a different angle which is entirely different from others as is perceived by the mind's eye through 'fresh ways of thinking'. He has to express his ideas clearly and also grasp ideas clearly and comprehensively.

**Steps of the Model to be followed in the Classroom:**

1. Describe the topic
2. Create direct analogies
3. Describe personal analogies
4. Identify compressed conflicts
5. Create new direct analogy
6. Re-examine the original topic
7. Evaluate

**Step I:** The teacher asks the students to describe a given topic. This can be done orally or the students can write down the topic. Descriptive words are then listed on the board. Example: The topic is "Feelings".

**Descriptive words:** love, hate, anger, sadness, guilt, happy, joy, satisfaction etc.
Step II: Students examine the descriptive words and form analogies between the words and an unrelated category such as plants, animals or machines. After all students have given an analogy, the best one is voted on by the class. Example: Think of a plant that reminds you of the listed words.

Analogies: 'A rose reminds me of Love'
'Jasmine reminds me of Valentines' Day and happiness'
'Lily reminds me of death and sadness'.

Step III: The teacher asks students to think about how he/she would feel to be the object chosen in Step II. Students must also tell why they have that particular feeling.

Students responses are recorded.

Example: How would it feel to be a 'Rose'?
Responses: alive, happy, safe, smelled, plucked, ignored, curdled, held on, dead, recognized, good, loved, bad, crushed.

Step IV: The students are asked to review their responses to find pairs of words which seem to 'fight' or are in opposition to one another.

The class votes for the pair of words that represent the best compressed conflict.

Example: ignored-love, good-bad, happy-sad, alive-dead, held on-crushed, audaciously humble.

Step V: The teacher asks for another category for a direct analogy and the class must think of example of that category which are best described by the compressed category chosen in Step IV.

Example: “Animal” is the analogy, “alive-dead” are the characteristics.

Direct Analogies: lion, dog, cat, bear, dinosaur etc.

Step VI: The class talks about the original topic by comparing the last direct analogy to the original topic New images are created.
Examples “Feelings are like lions. They are alive but, sometimes appear to be dead”, Feelings are like Roses and Lilies. Sometimes they make you happy and sometimes they make you sad” etc.

Step VII: Students evaluate the writing done before and after the model to see if more creative insight have been added. They must also analyze the thought process involved.

1.3.5 Characteristics of Synectics Model

- According to this model creativity is important in everyday activities. Gordon’s model is designed to increase problem solving, creative expression, empathy and insight into social relations.
- The creative process is not at all mysterious. It can be described, and it is possible to train persons directly to increase their creativity.
- Creative invention is similar in all fields- the arts, the sciences, engineering and is characterized by the same underlying intellectual process.

Thus synectics model of teaching is a completely new and novel strategy of teaching in the learners, is supported to provide them some novel and funny experiences through the use of analogies which happens to be its essential features. Further this strategy encourages divergent thinking among the learners and attempts to present a concept in a new approach which may develop among the learners a desire or motive to achieve something unique. Synectics as a group activity may also develop a sense of competitiveness and a strong sense or motive to achieve among the learners by means of introducing novel analogies.

1.3.6 Synectics Model of Teaching in the Classroom

Bruce Joyce and Marsha Weil (1972) in developing their “Model of Teaching” made some adaptations by distinguishing two strategies of synectics model of teaching in the classroom.
1) **Exploring the unfamiliar** – which aims at increasing students understanding and internalization of substantially new or difficult content, by comparing and contrasting a familiar analogy to unfamiliar material.

2) **Creating something new** – which aims at producing something new, a new viewpoint, a new product, a solution to a problem etc., and to see familiar things in unfamiliar ways.

Both the strategies have metaphorical mechanisms at their heart but first is analytical, a learning stage and the latter is used to create conceptual distances. This technique seems to be applicable to children of all age levels. It is better to move into synectics model gradually, by first spending a few days on stretching exercises to get familiar with and comfortable in metaphorical activities. Synectics procedures can be used with students in all areas of the curriculum, the sciences as well as the arts. They can be applied to both teacher student discussion in the classroom and to teacher-made materials for the students. The products or vehicles of synectics activity need not always be written; they can be oral role plays, painting and graphics or simply changes in behaviour.

### 1.3.7 Orientation to the Model

**The Creative State and the Synectics Process**

The specific process in synectics are developed from a set of assumptions about the psychology of creativity.

First, “by bringing the creative process to consciousness and by developing explicit aids to creativity, we can directly increase the creative capacity of both individuals and groups”.

A second assumption is that the “emotional component is more important than the intellectual, the irrational more important than the rational”.

The third assumptions is that the “emotional, irrational elements must be understood in order to increase the probability of success in a problem solving situations”.

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**Metaphoric Activity** - Through the metaphoric activity of the Synectics Model, creativity becomes a conscious process. Metaphors establish a relationship of likeness. The comparison on one object or idea with another object or idea by using one in place of the other. Through these substitutions the creative process occurs, connecting the familiar with the unfamiliar or creating a new idea from familiar ideas.

**Personal Analogy** - Personal analogy requires students to emphasize with the ideas or objects to be compared. Students feel they have become part of the physical elements of the problem. The identification may be with a person, plant, animal, or with non living things.

*For example:*
- Be a cloud. Where are you? What are you doing?
- How do you feel when the sun comes out and dries you up?
- Pretend you are your favourite book. Describe yourself.
- What are your three wishes?

**Direct Analogy** - Direct analogy is a simple comparison of two objects or concepts. The comparison does not have to be identical in all respects. Its function is simply to transpose the conditions of the real topic or problem situation to another situation in order to present a new view of an idea or problem.

**Compressed Conflict** - The third metaphorical form is compressed conflict, generally a two-word description of an object in which the words seem to be opposites or to contradict each other. Tiredly aggressive and friendly foe are two examples. Gordon's examples are life-saving destroyer and nourishing flame. He also cites Pasteur’s expression, safe attack. Compressed conflicts, according to Gordon, provide the broadest insight into a new subject. They reflect the student's ability to incorporate two frames of references with respect to a single object. The greater the distance between frames of reference, the greater the mental flexibility.
Stretching Exercises: Warm-Ups for Metaphoric Activity:

Stretching exercises provide experiences with the three types of metaphoric activity, but they are not related to any particular problem situation nor do they follow a sequence of phases. They provide a time to teach students the process or metaphoric thinking before they are asked to use it to solve a problem, create a design, or explore a concept.

1.3.8 The Strategies of Synectics

Fig. No. 1: Syntax of Strategy One: Making the Familiar Strange
(Creating Something New)
The following transcript of a synectics session shows a teacher helping students to see a familiar concept in fresh ways.

Syntax of strategy two: making the strange familiar:

By contrast, strategy two, making the strange familiar seeks to increase the student's understanding and internalization of substantially new or difficult material. In this analogy, metaphor is used for analyzing not for creating conceptual distance as in strategy one.

Fig. No. 2: Syntax of Strategy Two: Making the Strange Familiar

Start

Phase-I Description of the present condition
Teacher provides information on new topic

Direct Analogy

Phase-II
Teacher suggests direct analogy and asks students to describe the analogy

Personal Analogy
Teacher has students “become” the direct analogy

Comparing Analogies

Phase-IV
Students identify and explain the points of similarity between the new material and the direct analogy

Explaining Differences
Students explain where the analogy does not fit

Exploration
Students re-explore the original topic on its own

Generating Analogy
Students provide their own direct analogy and explore the similarities and differences

Stop
The following transcript of a synectics session shows the strategy is both analytical and convergent; students constantly alternate between defining the characteristics of the more familiar subject and comparing these to the characteristics of the unfamiliar topic.

**Social System** - The model is moderately structured, with the teacher initiating the sequence and guiding the use of the operational mechanisms. The teacher also helps the students to intellectualize their mental processes. The students, however, have freedom in their open-ended discussions as they engage in metaphoric problem solving. Norms of co-operation, "play of fancy", and intellectual and emotional equality are essential to establish the setting for creative problem solving. The rewards are internal, coming from students' satisfaction and pleasure with the learning activity.

**Principles of Reaction** - Instructors note the extent to which individuals seem to be tied to regularized patterns of thinking, and they try to induce psychological states likely to generate a creative response. In addition, the teachers themselves must use the non-rational to encourage reluctant students to indulge in irrelevance, fantasy, symbolism, and other devices necessary to bizarre out of set channels of thinking. Because teachers as models are probably essential to the method, they have to learn to accept the bizarre and the unusual. Instructors must accept all students responses to ensure that students feel no external judgements about their creative expression. The more difficult the problem is, or seems to be to solve, the more necessary it is for teachers to accept farfetched analogies; so that individuals develop fresh perspectives on problems.

In strategy two, teachers should guard against premature analyses. They also clarify and summarize the progress of the learning activity and, hence, the student's problem-solving behaviour.
1.3.9 Using Synectics in the Curriculum

Synectics is designed to increase the creativity of both individuals and groups. Sharing the synectics experience can build a feeling of unity among students. Students learn about their fellow classmates as they watch them react to an idea or problem. Thoughts are valued for their potential contribution to the group process. Synectics procedures help to create a community of equals in which simply having a thought is the sole basis for status. This norm and that of playfulness quickly give support to even the most timid participants.

Synectics procedures may be used with students in all areas of the curriculum, the sciences as well as the arts. They can be applied to both teacher-student discussion in the classroom and to teacher made materials for the students.

Some possible uses of the creative process and its accompanying emotional states are discussed in the following paragraphs.

Creative Writing - Strategy one of the synectics model can be directly applied to creative writing, not only because it stimulates the uses of analogies but because it helps “break set” as writers seek to expand the range of devices they can use to approach expressive tasks in expository and persuasive as well as the narrative.

Exploring Social Problems - Strategy one provides an alternative for exploring social issues, especially one where the students are vested in definitions and solutions. The metaphor creates distance, so the confrontation does not threaten the learner, and discussion and self-examination are possible. The personal analogy phase is critical for developing insight.

Problem Solving - The objective of strategy two is to break set and conceptualize the problem in a new way in order to suggest fresh approaches to personal life as well as in the classroom. Social relations in the classroom, conflict resolution, how to overcome maths
anxiety, how to feel better about wearing glasses, how to stop making fun of people- the list is endless.

Creating a Design or Product - Synectics can also be used to create a product or design. A product is something tangible, such as painting, a building, or a bookshelf, whereas a design is a plan, such as an idea for a party or a new means of transportation. Eventually, designs or plans become real, but for the purposes of this model they remain as sketches or outlines.

Broadening our Perspective of a Concept - The model often works effectively with students who withdraw from more “academic” learning activities because they are not willing to risk being wrong. Conversely, high-achieving students who are only comfortable giving a response they are sure is “right” often feel reluctant to participate. We believe that for these reasons alone, synectics is valuable to everyone.

Synectics combines easily with other models. It can stretch concepts being explored with the information-processing family; open up dimensions of social issues explored through role playing, group investigation, or jurisprudential thinking; and expand the richness of problems and feelings opened up by other models in the personal family.

The most effective use of synectics develops over time. It has short-term results in stretching views of concepts and problems, but when students are exposed to it repeatedly, they can learn how to use it with increasing skill and they learn to enter a metaphoric mode with increasing ease and completeness.

Gordon, Poze, and their associates have developed a wide assortment of materials for use in schools, especially in the language development areas (Gordon and Poze, 1976). The strategy is universally attractive, and its fortunate combination of enhancing productive thinking and nurturing empathy and interpersonal closeness finds its many uses with all ages and most curriculum areas.
The synectics model contains strong elements of both instructional and nurturant values. The creative process can be communicated and that it can be improved through direct training, Gordon has developed specific instructional techniques. Synectics is applied, however not only in the development of general creative power but also to the development of creative responses over a variety of subject matter domains. Gordon clearly believes that the creative energy will enhance learning in these areas. To this end he emphasized a social environment that encourages creativity and uses group cohesion to generate energy and enables the participants to function interdependently in a metaphoric world.

Another approach to the stimulation of creativity through metaphoric activity is presented by Judith and Donald Sanders (1984). Their book is particularly useful for the range of explicit applications that are included. We have noticed that many educators
are not automatically aware of the spectrum of useful applications for models designed to induce divergent thinking. For some reason, many people think of "creativity" as an aptitude that defines talent in the arts, especially writing, painting, and sculpture; whereas the creators of these models believe that this aptitude can be improved and that it has applications in nearly every human endeavour and thus, in every curriculum area.

Newby and Ertner (1994) have conducted a nice series of studies where they taught students to use analogies to approach the learning of advanced physiological concepts by college students. Their results confirm the experience we have had with K-12 students; the analogies both enhanced immediate and long term learning and increased the pleasure the students had in learning the material.

Baer (1993) reports a set of studies exploring specific and general divergent thinking skills that confirms the general creativity-inducing strategies probably apply across many domains but in that domain specific training may be helpful in some domains.

Glynn (1994) has reported a study in science teaching suggests that using analogies in textual material enhances both short and long-term learning.

1.4 Theoretical Framework on Achievement Motivation

1.4.1 Motivation

The term motivation has its etymological roots in the Latin word "movere" which means "to move". Motivation is defined as the energisation and direction of behaviour. Motivation cannot be observed but its effects may be observed.

Although motivation represents an internal force within the person, it is influenced by both internal factors within the person and external factors outside the person. Although broadly stated-internal factors include biologically based predispositions that lay the foundation for behaviour across situations; affectively based and cognitively based dispositions that produce behavioural tendencies in
particular domains and situation specific states that have an immediate direct impact on behaviour. External factors include which provides a basic set of assumptions, meanings and practices that establishes a person’s basic world view; socialization by parents, other adults in leadership positions and peers that mould and shape a person’s specific values, beliefs and behavioural patterns and environmental contexts that provide immediate clues for what is important and expected in a given situation.

1.4.2 Achievement Motivation

Achievement motivation plays a decisive role in the organization of human behaviour. It is a psychological construct which determines the achievement level of an individual. Achievement motivation is a construct originated from motivation. Motivation has traditionally been used to describe and explain difference in intensity and direction of behaviour.

1.4.3 Definitions of Achievement Motivation

Murray (1938) defined achievement motive as the desire or tendency to do things as responsible as possible. Good (1959) defines achievement motivation as a combination of a psychological forces which initiate, direct and sustain behaviour towards successful attainment of some goal which provides a sense of significance, no single measurable factor seems to account for it, measurement is in terms of constant validation of inter related scholastic, social and individual factors.

According to Heckhusan (1967) achievement motivation is the striving to measure or keep as high as possible one’s own capacity in all activities in which standard of excellence is thought to apply and where the executions of such activities can neither succeed nor fail.
1.4.4 Development of Achievement Motivation

An understanding of achievement motivation has implications for many aspects of human life, including how individuals develop new skills and how individuals make use of their existing skills.

Achievement motivation has its roots in early childhood. Child care practices, social, cultural and economic conditions of the family, parental expectations about their children, the conditions in which particular groups live and culture of the society influences in developing a person's motive to achieve. Man's social origin and culture also affect the extent to which one acquires an achievement motive.

Self esteem and self concept are other factors facilitating the need for achievement. Some psychological factors like anxiety, level of aspiration, curiosity etc. affect in developing one's own achievement motivation. Ojha (1973) observed that mothers love, father's permissiveness and love were positively related to achievement, whereas parental restriction and protection were negatively related to motivational achievement. Achievement motive develops more in the family where independent development of the child is emphasized. Low achievement motivation is associated with families in which the children are more dependent on their parents.

1.4.5 Achievement Motivation and Academic Achievement

There are different interpretations for motivation. In the discipline of education, motivation is a tridimensional phenomenon consisting of individual's beliefs in carrying out a specific task, reasons and goals of the individuals in doing the task and the emotional response concerning in carrying out the task.

Psychologists have noted that motivation should be taken into account in education because of its effective relationship with new learning, abilities, strategies and behaviours and they have presented motivation for academic achievement as one of the preliminary constructs for defining such type of motivation.
academic achievement is attributed to behaviours which lead to learning and achievement. In other words, motivation for academic achievement is such a pervasive inclination towards doing a task successfully in a particular context and assessing the performance spontaneously.

The psychologists have recognized and examined the effective factors in motivation for academic achievement. The results of their research indicated that personality, family, and social variables are related to this construct. Some others directed their studies towards integrating intellectual ability, learning style, personality and motivation for academic achievement as the predictors of academic achievement in higher education.

Studies have found numerous factors that motivate students to schools including perceptions of classroom climate, perceived ability, perceived instrumentality of instruction and achievement goals as predictor's engagement and efforts in school.

Students motivation in academics results from their perceptions of the classroom and sometimes from the interactions with teachers, peers and others in school. Many factors influence students motivation to learn including interest-in the subject matter, perception of the usefulness of studying, the desire to achieve, perception of one's ability and persistence to achieve.

Experts, parents and teachers have been interested in discovering the important forces influencing students achievement in academic. Most people believe that motivation plays a significant role in determining whether students achieve or fail. Each student has a different level of motivation as well as different personal and social factors that affect his or her motivation. It is imperative for educators and parents to understand better the interaction of the various aspects contributing to students motivation in order to ensure the academic success of school children.
1.4.6 Academic Achievement and Creativity

Academic motivation guides one's cognitive process during learning. Achievement motivation plays a vital role in the development of creativity. The higher the achievement motivation the higher the academic achievement. The higher the academic achievement, the higher the creativity. Poor academic achievement is one of the causes for poor creativity development.

Achievement motivation is very essential for learning and for fundamental scholastic achievement. Acquisition of knowledge and skills, development of positive attitude, inculcation of values at the mastery level constitute to the main purpose of learning. Any application of energy directed towards the learning of new materials, the solution of the problem, the discovery of new relationship etc., constitute creativity. These constituents can be achieved by more achievement motivation.

Our attitudes, aptitude, interest, feeling and emotions are influenced by our motivations. These motivational factors exert a profound influence in the field of education and learning. To acquire new knowledge skills and to get more creativity the achievement motivation is needed. When achievement motivation is higher, it results in academic achievement in turn results in the enhancement of creativity. Poor study habits, poor performance and failure in scholastic area, poor or bad habits or lack of training in study habits have an impact on learning. Psychologists and educationists felt that proper academic motivation in turn develop more creativity among the students. Good study habits, study environment, maintenance of motivation, creating positive effect towards learning goals and tasks, making the information more novel, integrating new aspects by the old knowledge or re organize existing knowledge etc., increase one's academic achievement.

Hence, achievement motivation is considered as an important parameter in the development of creativity and to enhance one's potentiality to perform better in all areas of abilities including
learning. Hence achievement motivation component is very necessary for the enhancement and fostering of creativity.

1.5 Need and Importance of the Present Study

Creativity is important amongst the secondary school students. Synectics model of teaching in language helps the students to foster the creativity. It helps the students in increasing the skill of writing and to enter a metaphoric made with increasing ease and completeness.

Gordon and their associates have developed a wide assortment of materials for use in schools, especially in the language development areas (Gordon and Poze, 1976). The strategy is universal and got its fortunate combination of enhancing productive thinking and interpersonal closeness.

- Synectics model of teaching language foster the creativity among the secondary school students.
- Synectics model of teaching helps the students to make use of three types of Analogies i.e., Direct Analogy, Personal Analogy and Compressed conflict in the way of thinking.
- Synectics model of teaching helps the students to make the use of metaphorical in writing.
- Synectics model of teaching helps the students to think freely and express their ideas individually and in a group.
- Synectics model of teaching helps the secondary school of students, since 17 is an important stage to the students. This strategy encourages divergent thinking among the learners and attempts to present a concept in a new approach.

The above mentioned skills need to be developed among the secondary school students. Since their mother tongue is Kannada, their writing skill in English is poor. Synectics model of teaching enhances creativity; emphasizes on story writing, poetry writing, describing the situations and vocabulary enhancement and emphasizes writing the essays in English language.
Achievement motivation is needed to increase academic achievement. Academic achievement is positively inclined towards creativity. Hence, the direct relationship between achievement motivation and creativity has to be studied.

1.6 Rationale of the Study

The discussion on creativity and models of teaching in the preceding pages show that a particular model of teaching can help in improving the creative potential. Further, the discussion under the caption 'effect of synectics' shows that this model helps in gain in general creativity, gain in language creativity, gain in academic achievement as well as group cohesiveness. But this is simply a hunch, empirical evidence of such effects are genuine. Hence, there is a need to conduct studies to explore aspects of nurturing and instructional effects.

Apart from these the problems with the teaching of Indian languages are that stress is laid on providing information through language rather than developing language ability; i.e., language creativity. There is a need that language creativity is to be developed amongst the students. The language creativity will however include novel way of putting one's ideas. In this context, studies are required that can guide the teachers to develop the language ability amongst students rather than simply use in languages as information giving system.

Another important aspect is the Indian education system adopted by the students. Three language formula i.e., mother tongue, national language Hindi and Modern language English. These are compulsory and thought to be necessary for Indian citizens.

In South India, i.e., in Karnataka, Hindi and English are compulsory in secondary level. But since English language is a foreign language, proper language ability and English language creativity is not coming out. Hence, study is needed for that purpose.
The review of related studies on synectics model of teaching reveals that most of the studies have been done on higher primary level only. Hence, studies are needed on secondary and higher secondary level also.

Many of the studies are done on some of the general science subjects. Though some studies are taken in foreign countries on English, in Indian context it is not been taken. Here students language creativity left only with the vernacular languages.

Many of the studies reveal that academic achievement is dependent upon achievement motivation. But the review on achievement motivation reveals that most of the studies have been done on general academic achievement. Hence, it is needed to study the effect of achievement motivation on the development of language achievement and language creativity.

1.7 Conclusion

Thus creativity as one of the important psychological constructs found among the entire individuals in different degrees. It is not only essential for individual development rather has substantial contribution towards the growth and development of civilization from various angles. Therefore, attempts through appropriate teaching strategies like synectics model of teaching should be taken for enhancing such ability among the learners. Thus we must apply this approach with necessary modification for developing the academic achievement of the learners in different curricular areas and achievement motivation of the learners and to develop language creativity among the learners.